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Abstract

This study examines three orientations to happiness (OTH) – pleasure, engagement, and meaning – and their associations to life satisfaction across different occupations and skill levels associated with certain occupations in a representative sample of the Swiss work force ($N = 1140$). Utilizing a broad classification of occupational groups, mean level differences in the OTH within and across occupational groups and skill levels were investigated. Results showed that people in higher skill occupations report a higher life satisfaction and a lower orientation to pleasure than those in lower skill occupations. Also, the orientation to meaning was more closely related to life satisfaction in higher skill than in lower skill occupations. With regard to occupational groups, we found a higher life satisfaction in managers and professionals, and further differences among other occupational groups (e.g., higher levels of pleasure in service and sales workers; or higher levels of engagement in craft and related trade workers). Overall, the effects across occupations were relatively small – which is largely consistent with previous findings in Swiss samples. Nonetheless, the differences across skill levels and occupational groups in the OTH could provide additional information in occupational counseling settings. Also, the current study covered all types of jobs (versus investigating selected occupation groups), thus allowing first insights into the generalizability of results across studies (and cultures).

Keywords: Orientations to happiness, pleasure, engagement, meaning, life satisfaction, occupation, positive psychology

Public Significance Statement

This article could show that the three orientations to happiness predict life satisfaction in all types of jobs. Thus, the orientations to happiness may be used for interventions aiming at increasing well-being in the workplace. It is suggested that in low skill level occupations,

engagement and meaning should be increased, while for high skill occupations, no differences in the orientations to happiness were identified. Thus, all orientations may be trained with an equal focus in order to achieve a “full life” and increase well-being in the work place.

Exploring Differences in Well-Being Across Occupation Type and Skill

In his Authentic Happiness Theory, Seligman (2002) suggested three different but compatible ways in which people try to achieve well-being, the three orientations to happiness (OTH): an orientation to a life of pleasure, an orientation to a life of engagement, and an orientation to a life of meaning. A variety of studies have shown that individuals differ systematically in their orientations to happiness and that the three OTH all positively correlate to favorable life outcomes, such as life satisfaction and well-being (e.g., park, Peterson, & Ruch, 2009). With respect to a domain that adult individuals spend a major part of their waking time in – the work place – it could be shown that the three OTH predict work satisfaction, vocational identity achievement, and career adaptability. Therefore, the three orientations to happiness form a relevant basis for the investigation of well-being at work and can be informative to practitioners in the coaching of persons and institutions to achieve more well-being in the work place.

Although the OTH have been studied in some specific occupational groups, a systematic investigation covering a broad array of occupations and skill levels is missing. Most studies have focused on subgroups of occupational groups, either on the basis of theoretical considerations or in convenience samples. Therefore, it is yet unknown how divergences in the results and implications across studies and cultures should be treated. Furthermore, it is not known how the results from existing studies generalize to other occupation groups that have not been investigated yet.

The current study aims at closing this gap by studying a representative sample of the Swiss work force (including a broad array of occupation types). For this purpose, we used the International Standard Classification of Occupations (ISCO). The ISCO classification distinguishes types of occupation on the basis of the kind of work performed (10

occupational types, i.e., managers; professionals; technicians and associate professionals; clerical support workers; service and sales workers; skilled agricultural, forestry and fishery workers; craft and related trades workers; plant and machine operators, and assemblers; elementary occupations; armed forces occupations), and the concept of *skill* (defined as a function of the complexity and range of tasks and duties to be performed in an occupation; four skill levels are distinguished). Consequently, the purpose of this study was to study orientations to happiness and their relation to life satisfaction in a representative sample of the Swiss work-force, considering all occupation types and the skill level associated with them.

Orientations to Happiness

Next, we will look at the three orientations to happiness that Seligman (2002) proposed in his Authentic Happiness Theory more closely. The orientation to a life of pleasure relates to hedonism and mainly involves increasing pleasure and lessening pain (Peterson, Park, & Seligman, 2005). The orientation to a life of engagement entails being engaged in the activities one does and pursuing flow experiences. Flow was defined as the state of becoming absorbed in an activity and losing track of time (Csikszentmihalyi, 1975; 1990). Flow typically arises when skills are matched to the challenge of the activity, and can be especially rewarding when both challenge and skills are high (Csikszentmihalyi, 1975; 1990). Finally, the orientation to a life of meaning involves cultivating one's virtues and using them in service of a greater good. These orientations to happiness are distinguishable but not incompatible and, therefore, can be pursued concurrently (Peterson, Park, & Seligman, 2005). Importantly, there is an interactive effect on life satisfaction when looking at the three orientations together as compared to each orientation individually: the positive effect of all three orientations together is larger than the addition of the single effects of the three OTH (e. g., Grimm, Kempf, & Jose, 2015; Peterson et al., 2005). Therefore, in order to

maximize well-being, the best strategy might be to pursue activities related to all three OTH (fostering a “full life”, see Peterson et al., 2005). First empirical tests of this notion (see Giannopoulos & Vella-Brodrick, 2011) did not support this idea: the combination of training all the orientations to happiness did not outperform interventions where only one orientation was trained with respect to increasing well-being. Yet, as Giannopoulos and Vella-Brodrick (2011) state, this might have been due to the inadequate operationalization of the combined intervention (i.e., saturation effect, time too short).

More recently, Seligman (2011) proposed an updated framework for the study of human thriving: the concept of *flourishing* building on five constituting themes that enable an individual to thrive: positive emotions (P), engagement (E), positive relationships (R), meaning (M) and accomplishment (A; leading to the acronym PERMA). While the three orientations to happiness are incorporated in the new model (P, E, and M), two new facets were added: positive relationships and accomplishment. As the model was not yet published when the data collection for the current study was planned, our analyses focus on P, E, and M. Moreover, the original orientations P, E, and M are also essential part of the new model and are still widely used in research (e.g., Isler & Newland, 2017; Morf et al., 2017; Proyer & Laub, 2017). Nevertheless, positive relationships and accomplishment would both be important facets for the study of work place well-being, as we would hypothesize that most occupations include interactions with colleagues, customers, and supervisors, stressing the importance of positive relationships. Moreover, accomplishment may be (especially in high skill level occupations) an important resource of reward at the work place.

OTH and the Prediction of Positive Life Outcomes

Numerous cross-sectional studies have reported a positive association between all three orientations to happiness and life satisfaction (e. g., Pollock, Noser, Holden, & Zeigler-Hill, 2016; Ruch, Harzer, Proyer, Park, & Peterson, 2010). These findings were confirmed

across nations (Park, Peterson, & Ruch, 2009) and when controlling for sociodemographic variables and personality (Vella-Brodrick, Park, & Peterson, 2009). Further, there is also information from experimental intervention studies suggesting a causal relationship between the orientations to happiness and well-being (Gander, Proyer, & Ruch, 2016; Giannopoulos & Vella-Brodrick, 2011; Proyer, Gander, Wellenzohn, & Ruch, 2016). Finally, there have also been studies confirming the predictive validity with domain specific well-being, such as job satisfaction (Martínez-Martí & Ruch, 2016).

OTH in the Work Place

The workplace as one domain where individuals spend a lot of their waking time has been shown to influence people's evaluations of their life in general (e.g., Loscocco & Roschelle, 1991). The orientation to engagement might be particularly relevant at the workplace, since there is ample evidence for the positive relationship between similar concepts to the orientation to engagement, such as "engagement at work", and well-being (e.g., Bakker, Schaufeli, Leiter, & Taris, 2008; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). While "engagement at work" (e.g., Bakker et al., 2008) denominates a positive, work-related state of mind, the orientation to engagement has more trait-like qualities (although Seligman does assume it malleable, see Seligman, 2002; 2011). Hakanen and Schaufeli (2012) report in a longitudinal study that "engagement at work" predicts life satisfaction – rather than the other way round. We hypothesize that the orientation to engagement as conceptualized by Seligman (2002, 2011), is a personal disposition that goes along with pursuing engagement in daily life. It may therefore be seen as a precursor to "engagement at work". Indeed, Ruch and colleagues (2010) reported that those with a higher orientation to engagement spend more time planning and pursuing engaged activities at work and also wished spending a lot of time with engaged activities at work.

However, also the other orientations to happiness are relevant for work-related outcomes. For example, Hirschi (2011) found a positive relationship of the orientations to engagement and meaning with vocational identity achievement, whereas Johnston and colleagues (2013) showed that all three OTH positively relate to career adaptabilities, and reported that an orientation to pleasure and engagement negatively relate to work stress.

Depending on personal dispositions or resources of the individual (e. g., Bakker & Demerouti, 2008; Staw & Ross, 1985) and characteristics of the work (e. g., Hulin & Blood, 1968), including job demands and resources (Baker & Demerouti, 2008), we assume that the type of occupation may offer different possibilities to pursue the three orientations to happiness at work. This, in turn, might impact the perceived job and life satisfaction (depending on the “fit” between an individuals OTH and the OTH provided by the workplace). Otherwise, different types of individuals may be drawn to different occupations. Grimm, Kemp, and Jose (2015) showed that the OTH influence the way different everyday behaviors are experienced – this may transfer to the workplace.

One might hypothesize that there could be differences in the OTH among occupational groups (e. g., one occupational group might score higher in pleasure than other occupational groups), but also differences in the profile of the OTH within occupational groups (e. g., one occupational group might score higher in engagement than in pleasure or meaning). Further, there could be differences with regard to the contribution of the OTH to life satisfaction among occupational groups (e. g., in one occupational group the orientation to pleasure might be more strongly related to life satisfaction than in another occupational group) or within occupational groups (e. g., a stronger relationship between pleasure and life satisfaction than between engagement and life satisfaction). Although studies on the OTH in varying occupational contexts addressing these questions are scarce, there have been some studies looking at few selected occupational groups. Chan (2009) for example reported a

specific profile in the OTH within a sample of teachers (and prospective teachers) with the highest mean-levels found for meaning, followed by an orientation to engagement, and pleasure. Chen et al. (2014) looked at a specific occupational group (managers in different fields), reporting that all three OTH correlated positively to life and work satisfaction. Swart and Rothmann (2012) found that an orientation to engagement, meaning, and pleasure all positively relate to life satisfaction in a sample of managers. Proyer, Annen, Eggimann, Schneider, and Ruch (2012) investigated the OTH in military professional officers. Also in military professional officers, all OTH positively related to life satisfaction. Further, they reported higher scores in the orientations to engagement and meaning in higher-ranking officers than in lower ranking officers. Finally, Peterson et al. (2005) reported a negative relationship between the level of education and the orientation to pleasure.

The latter two findings might indicate differences in the OTH (mean levels, profiles, relationship to life satisfaction) when comparing individuals of varying occupations that are associated with different skill levels. For many occupations, the level of education will denominate whether a certain occupation can be performed or not, as certain skills are deemed necessary for its successful execution. Thus, while the level of education is a broad indicator of achievement in individuals, the skill level assigned to an occupation is an indicator of the competencies necessary to perform this job. Presumably, the level of education is highly positively correlated to the skill level required for a certain occupation. However, while the level of education refers more to the potential for performing a job requiring a certain skill level, for the present article we were interested in those people who are currently performing jobs of specific skill levels, regardless of their educational background.

Purpose of the Current Study

In the current study, we studied a representative sample of the Swiss work force. We used the International Standard Classification of Occupations (ISCO) to categorize the occupation types and their accompanying skill levels. The purpose of this study was threefold: Firstly, we aimed at studying mean-level differences among different skill levels and occupational groups in the OTH and life satisfaction. Based on the findings of Peterson et al. (2005) and Proyer et al. (2012) we expected higher scores in pleasure and lower scores in meaning, and life satisfaction for lower skill level occupations compared to higher skill level occupations. Secondly, we aimed at studying the relative scores of the OTH within skill levels and occupational groups (e. g., whether in a specific occupational group the orientation to meaning is stronger endorsed than the orientation to pleasure), and whether there are different profiles among the occupations and skill levels. Based on previous findings (Peterson et al., 2005, Proyer et al., 2012) we assumed that the above postulated differences among skill levels would also show up when inspecting the relative importance of the orientations within a skill level. We hypothesized that higher skill occupations report comparatively higher scores in engagement and meaning than in pleasure, whereas we expected the opposite pattern (higher scores in pleasure than in meaning) in lower skill occupations.

Thirdly, we assumed that the differences between the skill levels with regard to the relative importance of the OTH would go along with differences in their contribution to life satisfaction. Thus, we assumed that the relationship of life satisfaction with pleasure would be smaller and the relationship with an orientation to engagement or meaning would be larger in higher skill occupations than in lower skill occupations (tested separately for the two orientations).

We did not formulate specific hypotheses with regard to the occupational groups due to the exploratory nature of this study, yet we chose to study differences across skill levels

and across occupations separately in order to provide insights on different levels of abstraction. Firstly, studying occupations grouped according to the skill level will give more insight into the relationships of the OTH and life satisfaction with the amount of required competencies in a work context. Basing on prior empirical evidence, we tested a set of hypotheses on differences between low and high skill level occupations. This will give insight into the replication and generalizability of the results across studies and cultures. Secondly, studying the occupational groups separately will (for the first time) give insight into a comprehensive classification of all occupations. This will allow comparing the findings to existing studies, which only ever investigated selected groups of occupations in varying cultures and will give first hints into the generalizability of the results across cultures.

Methods

Participants

A representative sample of 1140 German-speaking working adults aged between 26 and 56 living in Switzerland participated in this study. Demographic characteristics of the full sample are given in Table 1. All occupational groups according to the ISCO classification were represented, except for the armed forces occupations.

--- Table 1 around here ---

Instruments

The 9-item *Orientations to Happiness Questionnaire Short Form* (Ruch, Martínez-Martí, Heintz, & Brouwers, 2014) measures the three orientations to happiness, namely pleasure (e. g., “For me, the good life is the pleasurable life”), engagement (e. g., “I am always very absorbed in what I do”), and meaning (e. g., “My life serves a higher purpose”). Items are rated on a 5-point Likert scale ranging from 1 (*very much unlike me*) to 5 (*very much like me*). This short form has shown satisfactory psychometric properties, roughly equivalent to the long form, with alpha values ranging from .60 to .75 (Ruch et al., 2014). For

the current study, Cronbach's alpha for engagement was .56, for pleasure .73 and for meaning .69.

The 5-item *Satisfaction with Life Scale* (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) measures the subjective assessment of global life satisfaction (e. g., "I am satisfied with my life"), and uses a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). The German version used by Ruch, Harzer, Proyer, Park, and Peterson (2010) has shown good psychometric properties. Cronbach's alpha in the present study was .89.

Procedure

This study is part of a broader project that examines the impact of individual characteristics, resources and cultural background on professional trajectories, carried out by the *Swiss National Centre of Competence in Research LIVES – Overcoming vulnerability: Life course perspectives* (NCCR-LIVES). This ongoing seven year longitudinal project uses data from a representative sample of people living in Switzerland (Maggiori, Rossier, Krings, Johnston, & Massoudi, 2016). The data from this study belong to the first wave of data collection, which took place in 2012. The recruitment was conducted by the Swiss Federal Statistics Office on the base of a representative sample of individuals with ages ranging from 26 to 56 years, drawn from the Swiss national register of inhabitants. After receiving a letter with the description of the study, participants completed the first part of the survey (sociodemographic data and employment-related information) either by phone or online, depending on participant's choice. The second part (remaining questionnaires) was done either via a paper and pencil method, or online. Approximately 40-55 minutes were needed to answer the questionnaires. If necessary, the questionnaires were translated from the original language (English or French) into German. First, two independent translations in German were done by bilingual psychologists, and combined into one. Then, this translation was

checked and back-translated into the original language. The original author/translator compared the two versions. Finally, the institute responsible for the data collection checked the final versions. This study complies with the ethical standards of Swiss Society for Psychology. Participants were free to withdraw from the study at any time, and their anonymity was ensured. The institute that conducted the data collection obtained informed consent, kept the personal information, and researchers received a dataset without any personal information, in which participants were assigned numerical codes. Participants were compensated for their participation with a gift worth 20 Swiss francs.

Data Analysis

Participants' occupations were classified according to the International Standard Classification of Occupations (ISCO). Since some occupational groups (e. g., managers) are assigned to two skill levels, we combined skill levels 1 and 2 ("high skill levels"), and skill level 3 and 4 ("low skill levels") for all analyses, leading to clear cut distinctions for all occupation groups. We controlled for sex and age in all analyses.

Results

Mean Level Differences in the OTH and Life Satisfaction

First, we investigated the mean level differences in the OTH and life satisfaction across skill levels and occupational groups separately. Table 2 shows the descriptive statistics of the OTH scales and life satisfaction grouped by skill level and within the occupational groups.

--- Table 2 around here ---

For each dependent variable, we computed separate ANCOVAs testing for mean level differences among the groups while controlling for age and sex. Results are given in Table 3.

--- Table 3 around here ---

Table 3 shows that differences in life satisfaction and the orientation to pleasure were observed between the skill levels: Those in higher skill occupations reported higher life satisfaction and a lower orientation to pleasure than those in the lower skill occupations, in line with the expectations. Looking at the occupational groups separately, we found differences among the occupational groups with regard to life satisfaction and the orientation to pleasure. Contrasts comparing each occupational group with the average scores in life satisfaction and the OTH revealed that managers and professionals were more satisfied with their lives than the average of all occupational groups. Professionals reported a lower orientation to pleasure and service and sales workers a higher orientation to pleasure than the average, whereas craft and related trade workers reported higher scores in the orientation to engagement than on average. Overall, very few differences were identified across the occupational groups.

OTH Profiles

Next, we examined differences in the OTH profiles (relative importance of the three orientations) across skill level and occupational groups. For this purpose, we z-standardized the OTH scores across the sample, since it cannot be assumed that all scales do have the same difficulty. We carried out a set of repeated measures ANCOVAs with the standardized OTH scores (with three levels: pleasure, engagement, meaning) as the repeated measures factor, and the skill level or the occupational group, respectively, as between-subjects factors, while controlling for age and sex.

The analysis revealed an interaction between the orientations to happiness and the skill level ($F[2, 2272] = 5.50, p = .004, \eta_p^2 = .01$). Post-hoc tests revealed that those with low skill occupations reported comparatively higher levels in pleasure than in engagement and meaning (in line with our expectations), whereas for the high skill occupations, no post-hoc test reached significance (counter our expectations).

A second analysis revealed an interaction between the orientations to happiness and the occupational groups ($F[16, 2258] = 2.33, p = .002, \eta_p^2 = .02$). Looking at the occupations separately, the professionals reported higher scores in meaning than in pleasure, whereas the plant and machine operators and assemblers showed the opposite pattern: higher scores in pleasure than in meaning. Finally, the service and sales workers reported higher levels of pleasure than engagement or meaning. Again, only few differences were found across the occupation groups.

Relationships Between the Orientations to Happiness and Life Satisfaction

Next, we were interested in whether the contributions of the different orientations to happiness to life satisfaction differ among the skill levels. For this purpose, we computed partial correlations between the orientations to happiness and life satisfaction for both skill levels, while controlling for sex and age (Table 4).

--- Table 4 around here ---

Table 4 shows that all orientations to happiness were positively related to life satisfaction in the total sample and both at both skill levels, whereas for the low skill occupations the contributions of pleasure and meaning were numerically higher than for the high skill occupations (total explained variance: $R^2 = .10$ vs. $.07$).

In order to test for these differences, we conducted separate multiple regression analyses predicting life satisfaction by age, sex, skill level, each orientation to happiness, and the interaction between skill level and the orientation to happiness. Only for the orientation to meaning a significant interaction was found, confirming a significant difference in the contribution to life satisfaction between the skill levels. When comparing the sizes of the correlation coefficients within the skill levels (Olkin, 1967) no significant results were observed. Thus, pleasure, engagement, and meaning contributed comparably to life satisfaction within skill levels, counter our expectations.

Discussion

The present study examined the orientations to happiness (OTH) and their relationships to life satisfaction among and within skill levels and occupational groups. This is the first study to examine these variables in a comprehensive classification of occupational groups and skill levels in a representative sample of the Swiss working force.

The study showed that people in lower skill occupations report lower life satisfaction and a higher orientation to pleasure than those in high skill occupations. Further, people in lower skill occupations reported a stronger orientation to pleasure than to engagement or meaning. These findings are well in line with previous reports on differences in the OTH among educational groups (Peterson et al., 2005) or military professionals (Proyer et al., 2012). Thus, people in lower skill occupations seem to have a stronger inclination to pursue hedonic pleasures than other people and are also more inclined to pleasure than to other orientations. Of course, this study cannot determine whether those with a higher orientation to pleasure prefer lower skill occupations, or whether these occupations (and the resources and demands in these occupations) allow better for the pursuit of pleasure. For individuals performing low skill level occupations, interventions targeting hedonic aspects might be easier and better received by the participants since they are more familiar with pursuing well-being in this way. However, in order to achieve a “full life”, that is scoring high in all three orientations, interventions targeting engagement or meaning might be recommended in order to strengthen these orientations in lower skill occupations as well. Contrary to our expectations, there were no differences between the skill levels for engagement or meaning. Further, there was no predominant orientation to happiness for those in high skill occupations, generally disconfirming the idea of specific OTH profiles for occupation groups.

With respect to the relation to life satisfaction, it has been shown that the orientation to meaning has an even stronger relationships to life satisfaction in low skill occupations than

in high skill occupations. Although this was a comparatively small effect that does not necessarily translate to findings from longitudinal or intervention studies, this information might – pending further research – be relevant in occupational counseling settings: Assigning people to occupations that not only meet their skills but where the job and the co-workers also match their preferred orientation to happiness might help increasing the perceived fit to an occupation and thereby also affect job satisfaction and calling (Wrzesniewski et al., 1997).

In the present study we focused on the skill level of the occupations people are currently performing. Of course, this is strongly related to the level of education ($r = .46$ in the present study). Overall, findings would be highly similar when studying levels of education instead of skill levels (i.e., a positive association of education with life satisfaction and a negative association with the orientation to pleasure; higher relative levels of pleasure than engagement or meaning in lower educated people; but only a nonsignificant tendency for the result that the effect of meaning on life satisfaction increases with education). Thus, although results would be mostly parallel when inspecting education instead of skill level, education does not account for all of the reported effects: Although no differences among the absolute or relative levels of the orientations to happiness (only marginally significant effects for pleasure) or their contribution to life satisfaction would be observed when controlling for education, people in different skill level occupation still differ with regard to their life satisfaction. Additionally controlling for income, as a further variable strongly related to skill level ($r = .36$ in the present study), would explain these effects partially; no significant differences between skill levels with regard to life satisfaction (but still marginally significant effects for pleasure) are found, while the differential contribution of meaning to life satisfaction (higher in low skill occupations) and the different profiles (higher scores for pleasure than engagement and meaning in low skill occupations) would regain significance.

When examining different occupational groups, we found that in those occupations requiring the highest skills (i.e., managers and professionals) individuals reported to be more satisfied with their lives than the average worker. These findings are well in line with earlier research (e.g., Johnson et al., 2013) and complement existing studies reporting that for managers, all orientations to happiness contributed to life and work satisfaction (Chen et al., 2014; Swart & Rothmann, 2012). These differences could be explained by several variables that are known to be positively related to well-being. People in those occupations are better educated (e.g., Kahneman & Deaton, 2010), receive higher salaries (e.g., Johnson & Krueger, 2006), and often enjoy higher levels of autonomy (Gagné & Deci, 2005; Warr, 1999). However, the differences in life satisfaction also remained when controlling for education level.

Further, we found differences in the orientation to pleasure for professionals (below-average) and service and sales workers (above-average), and above-average scores in engagement for craft and related trade workers. Similar results were also found when inspecting profiles of the OTH within occupations where service and sales workers and plant and machine operators reported higher scores for pleasure, while professionals reported lower scores for pleasure than for any other orientation. Yet, no comparison to existing studies are possible, as no such studies exist. Most of these results could also be explained by the level of education; across all occupational groups no significant effects on the absolute or relative scores of the OTH were observed when controlling for education.

Overall, the differences between and within occupations were relatively small in terms of effect sizes. Whereas this might be partially explained by the measure(s) used, one might also argue that people craft their job (Wrzesniewski & Dutton, 2001) in order to match their preferred orientation to happiness; this could be especially relevant in higher (skill-) level jobs where employees have more freedom to do so (Warr, 1999). Job crafting could

thus even out potential differences in OTH profiles. Finally, the relationships of the OTH with life satisfaction did not differ from each other and were highly comparable in size to what has previously been reported in German-speaking samples (Ruch et al., 2010).

Limitations

Firstly and most importantly, all findings and tentative conclusions are based on correlations, thus, while we assume that individuals are drawn to a profession that suits their OTH profile, it could also be that individuals choose a specific profession because of their orientations to happiness. Secondly, the measure of the OTH was a short version with fewer items and lower reliabilities compared to the long form of the OTH scale. This may have attenuated the size of the associations observed. For most occupation groups (and the large sample overall), the sufficiently large sample size may compensate for the reduction of the reliability. Yet, we are aware that the sample sizes of some of the occupational groups (i.e., the elementary occupations) were small, which might have impacted on some of the results. Future studies with bigger samples of all occupational groups would be beneficial.

Thirdly, Ruch et al. (2014) report higher mean levels in OTH-pleasure and OTH-engagement as assessed with the short form and compared to the long form, and the opposite effect for OTH-meaning (higher mean levels in the long form than the short form). Thus, the levels of pleasure and engagement might be higher in the current data. Yet, it is unclear whether applying the long form would change the nature of our results, as our results are in line with earlier findings on Swiss samples (see Buschor, Proyer & Ruch, 2013; Ruch et al., 2014). Future studies are thus needed to replicate the findings of the current study.

Fourth, due to the nature of skill level categorization in the ISCO classification, we could only use binary grouping for comparisons among skill levels. As skill levels should optimally be studied on a continuum, future studies should employ alternative classifications that allow for clear cut skill level assignments on a continuum. Also, skill levels of the

current profession and education level are of course strongly intertwined and it is not possible to separate these two. Fifth, Seligman (2002) revised his Authentic Happiness Theory in 2011, assuming two additional components: positive relationships, and accomplishment. This revision was not published yet when this study was conducted. Nonetheless, it would be interesting whether there are differences among occupational groups and skill levels with regard to the newly added components. Especially, as Lyubomirsky, King and Diener (2005) showed that success at work correlates positively with well-being, indicating that accomplishment could be important. With respect to positive relationships, it was shown that individuals with close relationships (at work and beyond) are less vulnerable to ill health, which consequently should have positive effects on well-being, reduces absenteeism and burnout (e.g., Myers, 2000). Lastly, Gander and colleagues (2017) delivered first empirical evidence that accomplishment and relationships can also be fostered through interventions.

Application

In the light of workplace well-being and successful career trajectories, the orientations to happiness may be used for interventions aiming at increasing well-being at the workplace. For low skill level occupations (or people with lower education), it was shown that an orientation to pleasure is endorsed higher than an orientation to engagement and meaning. Thus, pleasure might be more easily trained, but in order to achieve a full “life”, engagement and meaning should be increased. This is especially important, as within low skill occupations, the orientation to meaning shows a higher relationship to life satisfaction than in high skill occupations. Notably, careful consideration will have to be given to the possibilities and restraints that are present in each occupation type when designing such interventions. When designing an intervention, one will have to analyze where and how an orientation to meaning and engagement can be pursued in a given occupation. For high skill occupations, no differences in the orientations to happiness were identified and thus, all orientations may

be trained with an equal focus in order to achieve a “full life” and increase well-being at the work place. Furthermore, future studies may not only consider interventions targeting the individuals, but also target the occupational environments: It might be fruitful to reflect on what would need to be changed (and can be changed!) in a professional environment in order to enable pleasure, engagement and meaning. These conditions – if changeable at all – could consequently be targeted. We hypothesize that these supporting working conditions would consequently positively influence work performance and well-being (e.g., De Jonge et al., 2001).

Although framed cautiously (until further research has backed up the current results), career counselors may also make use of the current findings in as much as individuals may not only be advice to choose an occupation matching their skill level, but also paying attention to finding a specific work place where the co-workers have similar orientations to happiness. This may increase the satisfaction with the work place and team.

Conclusion

This study delivers first evidence that the occupation does matter for the use of the OTH and different pathways to a fulfilled life may be fostered through different jobs. Moreover, the current study has some theoretical and practical implications. First, it might have important implications for vocational guidance and personnel selection. Second, the results observed in this study can be helpful when designing and applying interventions in the work context aimed at improving the well-being of employees. Yet, a more fine-grained analysis of occupation characteristics needs to be pursued in future studies to disentangle the effects the occupations have on the application of the OTH within a workplace setting. In this vain, it might be fruitful to consider a person-job-fit perspective (e.g., Kristof-Brown, Zimmerman, & Johnson, 2005) and investigate more closely how the OTH feed into the “needs-supplies-fit” (i.e., how the needs, desires and preferences are met by the job

individuals perform). Also, it needs to be investigated on a team level, how the compatibility of the OTH among co-workers influences well-being at work, as individuals search validation of their perspectives (e.g., ones preferred orientation to happiness) by interacting with similar others (cf. Kristof-Brown et al., 2005).

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Table 1

Sociodemographic Characteristics of the Full Sample.

<i>N</i>	1140
Age	
<i>M</i>	41.94
<i>SD</i>	8.77
Range	26 - 56
Female (%)	48.9
Education (%)	
Tertiary	34.4
Secondary	56.0
Primary	3.9
Primary unfinished	0.3
Other	5.4
Marital status (%)	
Single	30.2
Married/living as	55.4
Widowed	1.1
Divorced	8.3
Separated	1.8
Other	3.2
Household Income (%)	
< 59,999 CHF	12.5
60,000 – 99,999 CHF	32.2
100,000 – 139,999 CHF	29.1
> 140,000 CHF	26.2

Table 2

Descriptive Statistics of OTH and Life Satisfaction in the Total Sample and Separately for the Occupations.

		OTH pleasure			OTH engagement		OTH meaning		Life satisfaction	
	<i>N</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Skill Level										
Low	435	3.74	0.74		3.51	0.67	3.11	0.81	5.04	1.10
High	705	3.54	0.74		3.45	0.65	3.06	0.84	5.36	1.03
ISCO Occupational Groups										
1	126	3.62	0.70		3.56	0.67	3.07	0.83	5.57	0.83
2	335	3.47	0.77		3.40	0.68	3.09	0.87	5.42	1.04
3	244	3.59	0.70		3.45	0.59	3.02	0.81	5.18	1.08
4	95	3.60	0.72		3.42	0.65	3.02	0.87	4.93	1.19
5	139	3.80	0.67		3.45	0.58	3.13	0.75	5.07	1.06
6	26	3.58	0.87		3.72	0.68	3.32	0.80	4.98	1.28
7	112	3.77	0.82		3.64	0.74	3.17	0.82	5.20	1.05
8	48	3.83	0.69		3.51	0.66	2.92	0.81	4.94	0.97
9	15	3.78	0.78		3.42	0.89	3.33	0.92	4.76	1.39
Total	1140	3.62	0.74		3.47	0.66	3.08	0.83	5.24	1.07

Note. 1 = Managers. 2 = Professionals. 3 = Technicians and associate professionals. 4 =

Clerical support workers. 5 = Service and sales workers. 6 = Skilled agricultural, forestry and fishery workers. 7 = Craft and related trades workers. 8 = Plant and machine operators, and assemblers. 9 = Elementary occupations.

Table 3

Mean-Level Differences in Life Satisfaction and the Orientations to Happiness Between Skill Levels and Among Occupational Groups, Controlled for Sex and Age.

	Skill Level			Occupational Groups		
	<i>F</i>	<i>p</i>	η^2_p	<i>F</i>	<i>p</i>	η^2_p
SWLS						
Sex	0.26	.872	.00	0.22	.638	.00
Age	8.78	.003	.01	8.84	.003	.01
Grouping factor	25.52	<.001	.02	5.57	<.001	.04
OTH-P						
Sex	0.25	.614	.00	0.15	.697	.00
Age	3.01	.083	.00	2.85	.092	.00
Grouping factor	19.88	<.001	.02	3.95	<.001	.03
OTH-E						
Sex	1.27	.260	.00	0.04	.850	.00
Age	9.89	.002	.01	9.36	.002	.01
Grouping factor	2.21	.137	.00	1.97	.046	.01
OTH-M						
Sex	2.38	.15	.00	3.12	.078	.00
Age	14.87	<.001	.01	14.59	<.001	.01
Grouping factor	0.84	.361	.00	1.16	.318	.01

Notes. P = Pleasure. E = Engagement. M = Meaning. For skill level: all dfs = 1, 1136; for occupational groups: all dfs = 1, 1129. Grouping factor = low skill level vs. high skill level or ISCO occupational groups.

Table 4

Partial Correlations and Regressions of Life Satisfaction and the Orientations to Happiness Between Skill Levels and Among Occupational Groups, Controlled for Sex and Age.

	OTH Pleasure	OTH Engagement	OTH Meaning
Partial Correlations	<i>r</i>	<i>r</i>	<i>r</i>
Total sample	.22***	.19***	.17***
Low Skill Level (<i>df</i> = 431)	.29***	.20***	.22***
High Skill Level (<i>df</i> = 701)	.22***	.20***	.14***
Regression (<i>dfs</i> = 5, 1134)	<i>b</i>	<i>b</i>	<i>b</i>
Age	.10**	.07*	.07*
Sex	.00	.00	-.01
Skill Level	.18***	.16***	.15***
OTH Dimension	.20***	.20***	.18***
Interaction (Skill x OTH)	-.01	-.03	-.05*

Note.

*** $p < .001$, ** $p < .01$, * $p < .05$ (one-tailed tests).

Footnotes

1 All skill level differences were derived according to the ISCO classification guidelines, ranging from 1 (no to low skill) to 4 (high skill level). Skill level three or four: managers (plan, direct, coordinate and evaluate the overall activities of enterprises, governments and other organizations, or of organizational units within them, and formulate and review their policies, laws, rules and regulations), senior officials and legislators (increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these activities). Skill level three: technicians, associate professionals (perform mostly technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations). Skill level two: clerks (support workers record, organize, store, compute and retrieve information related, and perform a number of clerical duties in connection with money-handling operations, travel arrangements, requests for information, and appointments), service and sales workers (provide personal and protective services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments, as well as at stalls and on markets), skilled agricultural and fishery workers (grow and harvest field or tree and shrub crops, gather wild fruits and plants, breed, tend or hunt animals, produce a variety of animal husbandry products, cultivate, conserve and exploit forests, breed or catch fish and cultivate or gather other forms of aquatic life in order to provide food, shelter and income for themselves and their households), craft and related trade workers (apply specific knowledge and skills in the fields to construct and maintain buildings, form metal, erect metal structures, set machine tools, or make, fit, maintain and repair machinery, equipment or tools, carry out printing work, produce or process foodstuffs, textiles, or wooden, metal and other articles, including handicraft goods), plant and machine

operators, assemblers (operate and monitor industrial and agricultural machinery and equipment on the spot or by remote control, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble products from component parts according to strict specifications and procedures). Skill level one: elementary occupations (involve the performance of simple and routine tasks which may require the use of hand-held tools and considerable physical effort).